

**REMARKS****I. General**

Claims 13, 15-18, and 20-27 are pending in the present application. Claims 13, 15-18, and 20-25 stand rejected under 35 U.S.C. § 103. Applicant respectfully traverses the rejections of record.

Claims 26 and 27 remain unaddressed in the final Office Action. The Examiner is directed that “[i]n accordance with the patent statute, ‘Whenever, on examination, any claim for a patent is rejected, or any objection . . . made’, notification of the reasons for rejection and/or objection together with such information and references as may be useful in judging the propriety of continuing the prosecution (35 U.S.C. § 132) should be given,” M.P.E.P. § 707. Applicant therefore requests that the Examiner either indicate claims 26 and 27 as being allowed or set forth the grounds for rejection with respect to these claims in order that Applicant may have a full and fair opportunity to explore their patentability, see M.P.E.P. §706.

**II. The 35 U.S.C. § 103 Rejections**

Claims 13, 15-18, 20-22, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto, United States patent number 5,361,395 (hereinafter *Yamamoto*), in view of Kaschke, United States patent number 5,555,550 (hereinafter *Kaschke*), in further view of Eastmond, United States patent number 4,606,075 (hereinafter *Eastmond*). Claims 23 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yamamoto* in view of *Kaschke* in further view of *Eastmond* in further view of Umezawa et al., United States patent number 5,491,507 (hereinafter *Umezawa*). Applicant respectfully traverses the rejections of record.

To render a claim unpatentable under 35 U.S.C. § 103, all the claim limitations must be taught or suggested by the prior art, M.P.E.P. § 2143.03. The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness, M.P.E.P. § 2142; *In re Peehs*, 612 F.2d 1287, 204 USPQ 835, 837 (CCPA 1980). Applicant asserts that the rejections of record do not show that all claim limitations are met by the applied art, and thus a *prima facie* showing of obviousness under 35 U.S.C. § 103 has not been made.

Moreover, “[r]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness,” *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. \_\_\_\_ (2007). Significantly, in the current case, the Examiner has not asserted “the simple substitution of one known element for another . . . [therefore] it will be necessary for [the Examiner] to look to interrelated teachings . . . the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements,” *id.* In the final Office Action, the Examiner has not provided analysis supporting any rationale why a person skilled in the art would combine the applied references to arrive at the inventions of various ones of the rejected claims. As the Supreme Court held, “[such] analysis should be made explicit,” *id.* Without this analysis, the Examiner has not discharged the burden of establishing a *prima facie* case of obviousness under 35 U.S.C. § 103.

#### **A. The Independent Claims**

Claim 13 recites “a first filter having an input connected to an output of said mixer, wherein said first filter is a low-pass filter . . . .” The Examiner concedes that *Yamamoto* does not meet this aspect of the claims. The Examiner therefore relies upon the disclosure of *Eastmond* to meet the claim, final Office Action at page 3. The low-pass filter of *Eastmond* is provided within a quadrature phase detector, see column 3, lines 6-15. There does not appear to be any corresponding circuitry within *Yamamoto* to be modified so as to include the low-pass filter of *Eastmond*.

Moreover, the Examiner has not provided any rationale as to why a person skilled in the art would combine the quadrature phase detector low-pass filter of *Eastmond* with the circuit of *Yamamoto*, see the final Office Action at page 3. Accordingly, the rejection of record with respect to claim 13 cannot be sustained under 35 U.S.C. § 103, see *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. \_\_\_\_ (2007).

Claim 18 recites that “said amplifying said second signal to generate a third signal includes amplifying said second signal by a variable gain amplifier (VGA), the limit of said

VGA being the maximum level acceptable by said third signal filtering step without distortion . . . .” The rejection of record asserts that *Yamamoto* teaches “the limit of said VGA being, the maximum level acceptable by, said third signal filtering step through filter 17 without distortion,” final Office Action at page 4. However, the Board of Patent Appeals and Interferences (hereinafter the Board) has expressly reversed the Examiner on this point, stating that after a review of *Yamamoto* “we will not sustain the rejection of this claim because it contains the limitation of ‘the limit of said VGA being the maximum level acceptable by said third signal filtering step without distortion,’” Decision on Appeal at pages 7 and 13. The Examiner is to carry into effect the decision of the Board, and is thus held to the decision by the Board, see 37 C.F.R. § 41.54 and M.P.E.P. § 1214. The rejection of record, relying upon *Yamamoto* to teach that which the Board has expressly found not to be present in the disclosure, is improper and should be withdrawn.

Applicant points out that new claim 26 recites that “said variable gain amplifier amplifies IF signals received from said mixer to a particular signal level, said particular signal level corresponding to the maximum signal level that can be accepted by a filter without distorting said RF signal . . . .” New claim 27 recites a similar limitation. Accordingly, although the final Office Action fails to address the patentability of these claims, Applicant asserts that claims 26 and 27 are patentable over the art of record.

#### **B. The Dependent Claims**

Claims 15-17 and 20-25 depend directly or indirectly from a respective one of claims 13 and 18. Claims 13 and 18 have been shown above to be patentable over the art of record. The rejections of record with respect to claims 15-17 and 20-25 do not cure the above identified deficiencies in the applied art. Accordingly, claims 15-17 and 20-25 are asserted to be patentable at least for the reasons set forth above with respect to claims 13 and 18.

#### **III. Summary**

In view of the above, Applicant believes the pending application is in condition for allowance. Accordingly, Applicant requests that the claims be passed to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-2380, under Order No. 49581/P006US/09604915 from which the undersigned is authorized to draw.

Dated: October 2, 2007

Respectfully submitted,

By R. Ross Viguet

R. Ross Viguet  
Registration No.: 42,203  
FULBRIGHT & JAWORSKI L.L.P.  
2200 Ross Avenue, Suite 2800  
Dallas, Texas 75201-2784  
(214) 855-8185  
(214) 855-8200 (Fax)  
Attorney for Applicant